

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Gerald Glanzman on September 12, 2008.

The application has been amended as follows:

Please replace the title with the following: Method for determining load balancing weights using application instance topology information

1. (Currently amended) A method, in a data processing system, of distributing traffic to application instances on one or more computing devices, comprising:

obtaining application instance specific operational information identifying operational characteristics of an application instance on a computing device of the one or more computing devices, wherein the application instance specific operational information includes ~~at least one of an application instance topology, an importance of transactions currently being processed by the application instance, an amount of time the application instance has been blocked waiting for resources, and an amount of resources consumed by the application instance;~~

comparing the application instance specific operational information to one or more other application instance specific operational information for one or more other application instances based on the application instance specific operational information obtained;

generating a load balancing weight based on a relationship between the application instance specific operational information and the one or more other application instance specific operational information;

attributing weight points to the application instance and the one or more other application instances based on a relative difference between the application instance specific operational information and the one or more other application instance specific operational information;

providing the load balancing weight to a load balancing device;
the load balancing device distributing the traffic to the application instance based on the load balancing weight;

wherein obtaining application instance specific operational information includes retrieving the application instance specific operational information from the application instance using an agent application residing on the computing device, and wherein the agent application identifies the application instance topology by sending a correlation in a request to an agent application associated with a second application instance, wherein application instance information is provided by the agent application associated with the second application; and

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wherein the method is implemented in a weight management system that is separate from the computing devices and from the load balancing device.

REASONS FOR ALLOWANCE

2. The following is an examiner's statement of reasons for allowance: The prior art of record does not provide for, nor suggests providing for a weight management system implementing the method to generate load balancing weight points based on application instance topology on a server. The topology is obtained by determining if transactions must be passed along to other applications to be processed. This topology information is obtained by retrieving the operational information from the application instance using an agent application of a first application and the agent application identifies the application instance topology by sending a correlation in a request to an agent application associated with a second application instance. The agent application of the second application receives the request, and the correlation, from the first application and determines that the first application must pass transactions along to the second application. This information is conveyed to the weight management system 770 (Fig. 7) such that the application instance topology information provided by the agent application associated with the second application instance is utilized to perform load balancing with respect to the first application instance. The weight management system 770 then sends these load balancing weights to the load balancing system 730 (via link connecting weight management system device 770 to the load balancing device 730 as shown in Figure 7) to efficiently route requests between the application instances.

3. The closest prior art of record would be Carlson, which shows the use of distributing traffic to application instances on various computing devices, however fails to disclose the use of application instance topology in the determination of the load

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balancing algorithms. The Examiner had previously utilized Johnson to meet this deficiency, however Johnson teaches a method for managing and tracking business transactions by embedding API program calls. Johnson does not disclose the use of this information is retrieved from an application instance such that the information is used in a comparison for a load balancing solution.

4. For these reasons, in conjunction with the other limitations of the independent claims, puts this case in condition for allowance.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph E. Avellino whose telephone number is (571) 272-3905. The examiner can normally be reached on Monday-Friday 7:00-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey C. Pwu can be reached on (571)272-6798. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Joseph E. Avellino/
Primary Examiner, Art Unit 2146